

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Progeny LMS, LLC)	File No. _____
)	
)	
)	
)	
)	

REQUEST FOR WAIVER

Albert Halprin

Janice Obuchowski
Of Counsel

Halprin Temple
1317 F Street NW
Fourth Floor
Washington, DC 20004
(202) 371-9100

February 15, 2005

SUMMARY

Progeny LMS, LLC (“Progeny”) respectfully seeks a limited waiver of FCC Rule Section 90.155 (d) for additional time to meet the build-out requirements for its Multilateration LMS (M-LMS) Economic Area (EA) licenses. No suitable equipment exists for Progeny to implement this first construction milestone. A limited extension of time would allow Progeny to fulfill the Commission’s public interest objectives in ensuring the utilization of M-LMS spectrum and in promoting a diversity of location services to end-users.

Since the FCC finalized rules for M-LMS licensees, the public interest goals for deploying secure unlicensed and licensed applications side by side have only grown in importance, particularly to meet homeland security requirements. Progeny shares the Commission’s continued vision for a spectrum policy that balances growth and innovation in both licensed and unlicensed services, including co-existence with other services in the same band to help meet critical security and location monitoring needs. Thus, Progeny requests a three-year extension of the five-year construction requirements for its M-LMS Economic Area licenses.

Progeny’s History

Progeny’s long-standing commitment to utilize M-LMS spectrum reaches back almost as far as the FCC’s own experience with the Automatic Vehicle Monitoring (AVM) Service. Starting in the 1980s, investors in Progeny and its predecessor organizations have made numerous investments in capital, time and effort to build a viable network. Those efforts continue unabated. In an attempt to gain a national spectrum footprint for this service, Progeny obtained M-LMS licenses at auction. The FCC granted Progeny the M-LMS licenses at issue in this request on July 19, 2000. Under Commission rules, the first construction deadline is July 19, 2005. From the 1999 auction to the present, Progeny has worked diligently with its employees, consultants, and investors to develop a competitive service.

Progeny is actively committed to the construction of a network with these

licenses, which cover most markets in the United States. This focus by Progeny on building a network that puts this valuable spectrum to use has continued in parallel with a Petition for Rulemaking filed at the FCC nearly three years ago seeking relief from outmoded regulatory restrictions. Simultaneously with its pursuit of this request, which remains pending, Progeny has maintained efforts to utilize this spectrum to its full potential.

Progeny's original business plan for the use of its LMS spectrum involved tracking vehicles using multilateration techniques. Unfortunately, the widespread introduction of low-cost, embedded GPS receivers in the last several years has obviated the market demand for such multilateration systems. During this same period, and particularly since September 11, 2001, Progeny has refocused its business plan on security needs.

Due Diligence

To this end, Progeny remains persistent in its efforts to enter operations. The company, through its employees and consultants, has conducted discussions with a wide array of U.S. manufacturers of telecommunications equipment, surveying established, large suppliers, as well as small, entrepreneurial firms. Unfortunately, the result has been nonproductive. The firms contacted, which are outlined in a separate due diligence attachment filed confidentially with the Commission, were highly reluctant to bear the risk to develop equipment or services targeting a narrow market niche for a stand-alone location and monitoring service. As another complicating factor, the regulatory restrictions the FCC placed on this spectrum have contributed to the reluctance of firms to wade into this specialized equipment area.

Independent of Progeny's due diligence efforts within the parameters of the existing service rules, the company filed a Petition for Rulemaking at the FCC to overhaul outdated regulatory restrictions for this spectrum, as part of a larger effort to make M-LMS service deployment viable.¹ Nonetheless, the Petition has remained unanswered at the FCC for nearly three years, creating further uncertainty among manufacturers about the return of any investment in time or capital to produce equipment for the band. Until these issues are resolved, this lack of closure concerning questions of

necessary regulatory flexibility presents another impediment to convincing service providers or equipment makers about the usefulness of M-LMS spectrum.

Even without commercially available equipment to meet its first construction milestone, Progeny is actively pursuing arrangements that would put this spectrum to productive use. An extension of its M-LMS construction obligations would enable Progeny to place a system in operation that will meet the location capability needs of important end users. As the Commission itself has acknowledged, no equipment is currently available to build out this spectrum.² Therefore, enforcing the current five-year construction requirement would thwart, rather than satisfy, the Commission's public interest objectives for this spectrum by further delaying the time-to-market for M-LMS-based location services.

In the instant Request for Waiver, Progeny demonstrates that a limited extension of the five-year construction milestone, from July 19, 2005, until at least July 19, 2008, would be aligned with the Commission's public interest objectives for this spectrum and the FCC's own requirements and precedents for granting such narrow relief. M-LMS licenses share important characteristics with other wireless services that only face an initial construction milestone at end of their ten-year license term, such as a lack of available equipment and specialized operating restrictions; thus, a grant of a five-year extension would be warranted to match the treatment given to Wireless Communications Services and other service categories.

Progeny has remained steadfast in its efforts to provide location service in this spectrum. Years of due diligence will not come to fruition for these licenses without available equipment.

FCC Precedent

The Commission already has provided construction timeline relief for another M-LMS licensee, Warren C. Havens, under FCC Rule Section 1.925. The FCC also applied factors under Section 1.946(e), concluding that Havens' failure to meet the construction milestone was due to causes beyond his control because no equipment is available. The Commission found that Havens faced unique factual circumstances and that strictly applying this build-out deadline would run counter to the public interest. In

finding good cause to grant a three-year extension, the Commission deemed commencement of construction impossible because of the absence of equipment.

Secondly, the FCC found that the five-year construction milestone at issue was far in advance of the first ten-year renewal deadline for the licenses. Finally, the Commission decided that the unique spectrum sharing requirements in the 902-928 MHz band have contributed to the difficulty that M-LMS licensees face in obtaining equipment. Specifically, this band is shared between government radiolocation systems; Industrial, Scientific, and Medical (ISM) devices; amateur radio operations; unlicensed devices and licensed M-LMS operations. These circumstances also apply equally to Progeny in this band.

For other licensed services as well, the FCC has recognized that rigid enforcement of construction deadlines when equipment is not available for similarly situated licensees would not be in the public interest. Importantly, in several instances the FCC granted the same relief to all licensees who timely sought it, providing equitable treatment to operators who were hampered in the same way by a lack of telecommunications gear. For example, the Commission extended the five-year construction requirement for all 220 MHz Phase II EA, regional and nationwide licensees, who contended that no equipment was available that was “economically feasible or being technically supported.”³

The FCC also granted additional construction time for all 900 MHz Specialized Mobile Radio licensees that properly sought an extension, citing a near-term lack of digital voice equipment.⁴ In the latter case, the Commission concluded that affording all license-holders additional time would serve the public interest by enhancing competition. Given that Progeny has undertaken years of due diligence and faces the same equipment dilemma as another M-LMS licensee already granted relief, providing additional build-out time to Progeny would preserve competition in the band.

Public Interest Objectives

Moreover, a grant of the instant, narrowly drawn waiver request is consistent with the FCC’s expressed public interest goals for M-LMS spectrum. In granting the relief on construction timelines sought by Havens, the FCC underscored the important public interest benefit in ensuring the utilization of M-LMS spectrum and promoting an array of

services to the public.

A grant of the waiver request sought by Progeny would pave the way for the introduction of a greater variety of location-based applications into the marketplace, including automatic vehicle location. This spectrum continues to be ideally suited for innovative public safety applications required by government agencies and other users. Thus, approval of the requested extension will allow the FCC to fulfill the long-awaited public interest benefits of ensuring the use of M-LMS spectrum and promoting an array of services to the public.

TABLE OF CONTENTS

Summary	i
I. Introduction	1
II. <u>Background</u>	3
III. <u>M-LMS Construction Requirements</u>	5
IV. <u>A Grant of the Limited Waiver Request Would be In Line With FCC Rules</u>	
7	
<u>A. The Purpose of the Rule Would Not Be Served, or Would Be Frustrated by, Application to the Instant Case; A Waiver Would Be in the Public Interest</u>	8
<u>B. Application of the Rule Would be Inequitable, Unduly Burdensome or</u>	
<u>Contrary to the Public Interest</u>	10
<u>C. Progeny's Inability to Meet the Construction Milestone Is Due to Causes</u>	

<u>Beyond its Control</u>	13
D. Progeny Faces Unique and Unusual Circumstances Contributing to the Lack of Equipment.....	14
E. Petitioner Has No "Reasonable Alternative" For Meeting Construction Requirements.....	15
F. Uncertainty Over Future Rules Adds to "Chilled" Equipment Market.....	15
V. <u>Granting a Limited Waiver to Progeny Would Be Consistent with FCC Precedent</u>	
<u>in Similar Wireless Proceedings</u>	17
A. 220 MHz Order Provides Basis for Relief.....	17
B. Nextel/Neoworld Public Interest Factors Hold.....	20
C. Relief Has Been Granted in Cases in Which Inferior Equipment Exists; Progeny Faces Complete Absence of Equipment.....	20

TABLE OF CONTENTS
(Cont'd)

VI. Grant of the Waiver Request Would be Consistent With FCC Precedent Regarding

a Similarly Situated M-LMS Licensee 22

VII. Conclusion.....23

Appendix A List of Progeny LMS, LLC Licenses

I. Introduction

Pursuant to Sections 1.925 and 1.946(e) of the Commission's Rules,⁵ Progeny LMS, LLC ("Progeny"), hereby requests that the Commission grant a limited waiver to provide additional time to meet the first construction deadline for its 900 MHz Multilateration Location and Monitoring Service (M-LMS) EA licenses⁶ as required by Section 90.155(d) of the FCC's rules⁷. As Progeny demonstrates herein, it is not possible to acquire or deploy M-LMS equipment in time to meet its July 19, 2005, construction deadline, because no such equipment has been developed, tested, manufactured or marketed. Thus, the FCC would allow substantial public interest benefits to be fulfilled for this spectrum by granting Progeny additional time to meet the build-out requirements. Progeny therefore requests, at a minimum, a limited, three-year extension until July 19, 2008, to meet the first five-year build-out deadline under the FCC's rules.

Given the absence of available equipment to meet these requirements, strict application of the construction deadline would thwart the underlying purpose of the rule because it is impossible for build-out to occur at this time. Moreover, the instant relief request, which is narrowly drawn, involves a five-year construction requirement that is far in advance of the first renewal deadline for the licenses, which is ten years after the original FCC grant of the license.⁸ In addition, M-LMS licenses face market and technology development issues that are similar to other services for which the Commission has declined to adopt an intermediate five-year construction requirement. As the FCC has recognized,⁹ other wireless services with similar unique characteristics to LMS operations face an initial construction milestone only at the close of a ten-year license term, rather than an interim, five-year deadline. Like M-LMS, these service categories lack available equipment, must contend with specialized operating parameters to prevent interference and hold the promise of offering competitive, innovative services. Examples include the Wireless Communications Service (WCS) and Local Multipoint Distribution Service (LMDS).

Furthermore, the lack of available M-LMS equipment is due to causes beyond Progeny's control and exists despite the company's years of due diligence in working to procure equipment regarding these licenses.¹⁰ A major contributing factor is the unique

spectrum-sharing situation in this band, which involves government radiolocation systems; Industrial, Scientific and Medical (ISM) devices; amateur radio operations; unlicensed devices, and licensed M-LMS operations. Despite these challenges, the FCC has remained steadfast in its belief that the utilization of M-LMS spectrum carries important public interest benefits.¹¹

Under the Commission's rules, a waiver may be granted under Section 1.925 if a licensee demonstrates that:

- The underlying purpose of the rule would not be served, or would be thwarted, by application to the instant case and that a grant of the waiver would be in the public interest;
- The petitioner establishes unique or unusual factual circumstances, that application of the rule would be inequitable, unduly burdensome or contrary to the public interest or the applicant has no reasonable alternative;¹² or
- The FCC also may grant an extension of time to finalize construction under Section 1.946(e) if a licensee demonstrates that failure to complete construction is due to causes beyond its control. The Commission also has made clear that in situations in which there are unique circumstances and the public interest would be served, it would consider waiving construction requirements on a case-by-case basis.¹³

Good cause exists to grant Progeny the relief proposed in this request, based on each of these criteria. Recent Commission precedent granting identical relief to an M-LMS licensee that faced the same absence of equipment indicates that an FCC grant of the instant waiver request is warranted. Finally, the public interest would be served by a grant of at least three additional years to meet the construction requirements. This will allow time for the development of applications and equipment, including for public safety and homeland security, which would put this licensed spectrum to productive use.

II. Background

As previously demonstrated to the FCC, Progeny's fundamental commitment to utilizing M-LMS is longstanding.¹⁴ Progeny's history with the Automatic Vehicle Monitoring (AVM) Service extends back nearly as long as the Commission's own

experience with this service. The FCC adopted an order in the early 1970s paving the way for the introduction of AVM, which later was renamed LMS when a spectrum allocation at 902-928 MHz and permanent service rules were adopted for this band.¹⁵ The original FCC vision for LMS was to provide functions such as vehicle tracking and location, furnishing important information for functions such as dispatch and routing.

Starting in the 1980s, investors in Progeny and its predecessor organizations have made numerous investments in capital, time and effort to build a viable network. Those efforts continue unabated. Mr. Nick Frenzel invested both equity and loan capital in a predecessor company, METS Inc., which was the general partner in a venture called Mobile Vision L.P., whose aim was to provide vehicle location service. Indiana Bell, a subsidiary of what was then known as Ameritech, contributed at least \$25 million in cash to the Mobile Vision venture. Ameritech also contributed technology to develop a competitive consumer location service. This led to technology and service trials, including one in Boca Raton, Florida. In the late 1980s, Mr. Frenzel again provided capital to METS and Mobile Vision, assuming a senior secured creditor position in the companies as a result of these loans. Mr. Frenzel and his family ultimately acquired all assets of the companies as senior secured creditors upon the insolvency of METS and Mobile Vision in 1996. At that time, Mr. Frenzel brought in new management in a continued effort to build a viable Interactive Video and Data Service (IVDS), now under the Progeny name.

In an effort to build a national footprint for this service, Progeny successfully competed in the FCC's 1999 auction of 528 LMS licenses for 176 EAs.¹⁶ The auction generated winning bids from four companies: Progeny, Warren C. Havens, Metro-Trak, LCC and FCR, Inc. Progeny, which had net high bids totaling \$2.36 million, secured (and now holds) 228 B and C block licenses in 113 EAs and A block licenses in two additional EAs. The M-LMS licenses at issue in this request were granted on July 19, 2000.¹⁷ Under the FCC's rules, the first build-out deadline for Progeny's licenses is July 19, 2005.¹⁸

Progeny's diligent efforts to implement service have been long-standing and consistent. In fact, Progeny's activities in this area began in the first year of the term of the licenses. As a result of substantial commitment in capital, time and other resources,

12

Progeny is the largest owner of spectrum in the LMS band, with 8 MHz of bandwidth in Economic Areas covering a population of 235 million. Despite the critical mass of spectrum in the band, Progeny has fared no better than smaller M-LMS licensees in generating equipment manufacturers' interest in building systems to meet the build-out requirements of the licenses. Progeny has attempted to obtain equipment for this band from a wide array of vendors, to no avail. Lacking the availability of such equipment, Progeny has nonetheless continued efforts to develop applications to fully utilize this spectrum.¹⁹ Progeny's active solicitation of interest for services that would put the licenses to their fullest and best use has been ongoing, despite the lack of equipment development for M-LMS. This activity has been contemporaneous with the company's separate Petition for Rulemaking at the FCC, which seeks flexibility in the rules governing LMS in the band.

As previously demonstrated to the Commission by Progeny, the company has discussed equipment availability with a wide array of U.S. telecommunications suppliers, ranging from larger firms to smaller, entrepreneurial companies.²⁰ The response was uniform. Manufacturers expressed their strong reluctance to invest the time and financial resources in developing equipment for a stand-alone location and monitoring service. The specialized rules in this band concerning interference protections and other regulatory limits and ambiguities have exacerbated the reluctance of manufacturers to reach out to this relatively small market segment, given the additional resources that would be needed to design such specialized equipment. The bottom line is that Progeny cannot begin to provide service under the Commission's rules without available equipment.

III. M-LMS Construction Requirements

The FCC's rules stipulate that M-LMS licenses be built out within five years of the grant of a license. Technically, Section 1.955(d) of the Commission's rules stipulates that the licenses be built out within 12 months of the grant of a license. However, the Commission's *Second LMS Report and Order* (FCC 98-157) extended this one-year requirement to five years within the grant of a license. Section 90.155(d) does not reflect

this longer build-out timeline, although these construction requirements are listed on the licenses. M-LMS Economic Area (EA) licensees were required to construct and place in operation a sufficient number of base stations that use multilateration technology to provide multilateration location service to one-third of the licensed area within five years of the initial license grant, and two-thirds of the population within 10 years.

The difficulty that M-LMS licensees face in obtaining equipment to meet these obligations, given the unusual restrictions and service rule requirements of this spectrum, is well known to the Commission. In the *Second LMS Order*, the FCC amended its service rules prior to the auction of the M-LMS spectrum in 1999 to extend the construction requirement from one year to five years.²¹ At that time, the Commission concluded that four additional years to build out this spectrum were warranted, in part, because “location services are being developed using alternative technologies, such as Global Positioning Satellite (GPS) systems, suggesting that service to the public will not be greatly delayed by allowing LMS licensees the option of constructing over a longer period.”²²

In addition, the *Second LMS Order* also concluded that the extensive use of this spectrum by other licensed and unlicensed users on a shared basis meant that a delay in the construction requirements would not result in the under-utilization of the band. The Commission made this finding even though LMS licensees have the exclusive right to provide multilateration LMS service within their licensed EA. Additionally, the original one-year build-out requirement was based on rules for site-licensed systems, rather than EAs. The Commission’s decision to extend the first construction deadline was based in part on a finding that it would be difficult for licensees to meet without raising a “prohibitive” amount of initial capital.

The *Biennial Review Wireless Bureau Staff Report for 2004*,²³ released in January 2005, acknowledged the proliferation of competing location technologies such as GPS, while citing the value of keeping technical restrictions in place for LMS to protect other users of this band from interference. This underscores the fact that in the face of such expanded competition, and absent the regulatory relief for which Progeny has advocated at the Commission, M-LMS licensees face an even narrower market niche that remains unfilled by the telecom manufacturing industry. As a result, Progeny remains unable to

14

obtain equipment to meet its build-out requirements.

IV. **A Grant of the Limited Waiver Request Would be In Line With FCC Rules**

The Commission may grant a waiver under Section 1.925 of the FCC's rules if a licensee shows that:

- The underlying purpose of the rule would not be served, or would be frustrated, by application to the instant case and that a grant of the requested waiver would be in the public interest; or

- As a result of unique or unusual factual circumstances, application of the rule would be inequitable, unduly burdensome or contrary to the public interest or the applicant has no reasonable alternatives.²⁴

In addition, the FCC also may grant an extension of time under Section 1.946(e) of Commission rules if a licensee demonstrates that failure to complete construction is due to causes beyond its control.

Despite years of due diligence by Progeny in attempting to obtain equipment, including substantive market research, none is available to meet this construction obligation. A more detailed accounting that includes proprietary information is filed confidentially with the FCC as a separate attachment.

In late 2004, the FCC extended the build-out deadline by three years for an identically situated M-LMS licensee, Warren C. Havens. In granting this relief, the FCC concluded that "the unavailability of M-LMS equipment is due to causes beyond Havens' control." This same marketplace dilemma faces Progeny. The FCC acknowledged this unique situation in granting the three-year extension to Havens, concluding that granting his request served the public interest because the lack of equipment makes it "impossible for construction to occur at this time." Specifically, the FCC found good cause to grant Havens' request because: (1) a unique situation exists in which no equipment is available, making the commencement of construction impossible; (2) the requirement at issue was a five-year build-out deadline, "well in advance of the first renewal deadline for the licenses;" (3) and the 902-928 MHz band represents a unique spectrum sharing situation involving multiple licensed and unlicensed users, including Government radiolocation operations, ISM devices, amateur radio operations, unlicensed devices and

15

licensed M-LMS licensees. This combination of factors led the FCC to conclude that Havens' inability to obtain M-LMS equipment was due to causes beyond his control.

As demonstrated below, Progeny's extension request meets each of the waiver criteria laid out by the FCC's rules. In addition, the same factors the FCC cited in the *Havens Order* as showing good cause as to why those licenses should have additional buildout time, apply with equal force to Progeny. Finally, the public interest benefits enumerated by the Commission in conjunction with the M-LMS band would be met by a limited waiver to construct these licensed areas, providing an opportunity for Progeny's spectrum to be fully utilized. The public interest benefit in allowing additional time for Progeny to deploy applications in the band is particularly important because it would promote competition among M-LMS operators by granting more than one licensee sufficient time to build out the licenses to offer services. The additional time would also allow Progeny, the largest LMS spectrum holder in the band, to provide innovative location and security services.

A. The Purpose of the Rule Would Not Be Served, or Would Be Frustrated By, Application to the Instant Case; A Waiver Would Be in the Public Interest

Approval of the instant waiver request would allow Progeny to achieve important public interest goals for the band. This is particularly relevant because despite the proliferation of competing location monitoring technology nearly six years after the FCC auctioned M-LMS licenses, the Commission has indicated that it has not given up on its public interest objectives for this spectrum. For example, in the *Havens' Order*, the FCC concluded: "Notwithstanding the availability of telematics, we find that there is an important public interest benefit in ensuring the utilization of M-LMS spectrum and promoting a variety of services to the public."²⁵

In addition, under Section 90.351 of the FCC's rules, M-LMS licensees may offer services to individuals, federal government agencies and entities eligible for licensing, including public safety and critical infrastructure entities. Due to the homeland security applications that may be offered to these users, who require a high degree of service reliability, the public interest would be further served in allowing the equipment market

to develop. There are also important public interest benefits related to having more than one viable LMS competitor in the band to provide location and related offerings.

Currently, only one M-LMS licensee, Havens, has been granted an extension of his construction requirements to put these licenses to productive use. Granting additional time for equipment and services development to identically situated licensees promotes competing offerings among M-LMS licensees at 902-928 MHz. This requested relief also enhances the opportunity for competition outside the band by promoting a greater variety of location-based services beyond existing telematics offerings.

In the *Havens Order*, citing the totality of the record in that proceeding, the FCC concluded that Havens presented unique factual circumstances and that strict application of the construction requirements would be contrary to the public interest. In the affirmative, the *Order* also found that granting the request would be in the public interest. As outlined in more detail below, the FCC found that the situation is unique because no equipment is available, making commencement of construction an impossibility.

The Commission noted that an intermediate five-year construction requirement is well in advance of the first renewal date of the licenses. The band also has unique sharing requirements, which have contributed to the serious challenges licensees face in procuring equipment. As Progeny has previously demonstrated to the Commission, the current regulatory restrictions severely limit the development of equipment required for these services.

An FCC grant of the instant request would put Progeny on par with similar services for which the FCC has declined to adopt an intermediate five-year construction requirement, such as the Wireless Communications Service (WCS), for which the FCC has adopted a ten-year requirement. Similar to WCS licensees, Progeny and all other M-LMS spectrum-holders face a dearth of commercially available equipment, unusual operating circumstances and “the promise of new and innovative services.”²⁶ As has previously been demonstrated to the Commission, a range of other wireless services must meet a first construction milestone only at the close of a ten-year license term, including IVDS licensees at 218-219 MHz, which must provide substantial service within ten years. Similarly, Local Multipoint Distribution Services, 39 GHz and 24 GHz fixed microwave licensees must provide substantial service within ten years. In contrast, the

Commission's five-year construction milestones for M-LMS licensees are more closely aligned with wireless services for which the equipment market is well developed and competitive, including Broadband PCS.²⁷

B. Application of the Rule Would be Inequitable, Unduly Burdensome or Contrary to the Public Interest

Application of this first construction milestone would be inequitable and unduly burdensome. The lack of any multilateration location equipment means that Progeny has no reasonable alternative for providing services in this band in time to meet the first build-out deadline.

Due to the unique sharing requirements of this spectrum, equipment development has been stymied. In fact, none has been available since the licenses were auctioned in 1999. Specifically, M-LMS licensees must co-exist with primary-status Government radiolocation systems; ISM devices; amateur radio operations; unlicensed devices, and licensed M-LMS operations. These multi-layered technical restrictions, unique to this spectrum, have led manufacturers to conclude that it would be too costly to invest resources in building M-LMS systems, particularly given the complications of meeting these regulatory limitations.²⁸

A lack of interest in additional bidders acquiring spectrum unsold in the LMS auctions has contributed to this lack of critical mass in the band to convince manufacturers that making equipment for this service would warrant the risk. In the original LMS auction, Auction No. 21, almost 250 EA-based LMS licenses remained unsold in 1999. The FCC had attempted twice to auction the remainder, including an auction in June 2001, Auction No. 39, which left 42 LMS licenses unsold. A 2002 auction that put remaining LMS licenses up for bid, along with 800 MHz specialized mobile radio service and 220 MHz service licenses, was postponed by the FCC. At the time, the Commission said it had received no application from any potential auction participant that evinced an intent to "bid exclusively on LMS licenses."²⁹

The requirements for this band set up a challenging sharing situation that has contributed to the reluctance of equipment-makers in committing resources to this band. Historically, the 902-928 MHz band has been utilized by users primary to LMS,

including Federal Government Radiolocation, Fixed and Mobile services, and users of ISM devices.³⁰ The band also has been used by groups that historically were “secondary” to LMS, including licensed amateur radio operators and unlicensed users of Part 15 equipment. One provision of the LMS rules requires these licensees to share the band with unlicensed users that receive a significant amount of protection from LMS service under a “safe harbor” definition of non-interference. At the same time, LMS providers are subject to specific service limitations, including restrictions on the content of messages.³¹

While some other M-LMS licensees have not advocated the rule changes proposed by Progeny, they have agreed with Progeny on the problem created for equipment development by the shared nature of multiple operations in this band. Havens told the FCC in his original request for additional time to build out his M-LMS licenses that these mixed operations create a “major and costly challenge” for the development of viable equipment.³² Another issue raised is that LMS service must co-exist with Part 15 devices, which may emit substantial power levels and patterns of RF that cannot be determined. M-LMS licensee FCR Inc. has raised similar concerns. Havens told the FCC that “development of equipment to operate in this service with the limitations and protections set out in the Rules would be prohibitively expensive unless the equipment has a wide application throughout the LMS service.”³³

Among the unique, outdated regulatory restrictions for this band for which Progeny has sought relief has been Section 90.353(d), which requires Progeny to demonstrate in field tests that its equipment does not interfere with any unlicensed service in the band. As Progeny and other M-LMS spectrum-holders have contended before the FCC, this restriction is unwieldy because it essentially requires licensees to prove a negative, especially when unlicensed operators do not have to disclose their presence.³⁴ This additional layer of regulatory complexity has further chilled investment by equipment-makers. At the same time, the FCC itself has been moving the mark for the types of Part 15 devices that can operate in unlicensed bands. The Commission in July 2004 granted increased flexibility in its technical rules for unlicensed devices, in a move that promotes more efficient sharing of spectrum by unlicensed devices and is designed to “encourage and facilitate an environment that stimulates investment and

19

innovation in broadband technology and services.”³⁵

C. Progeny’s Inability to Meet the Construction Milestone Is Due to Causes Beyond its Control

As Progeny has previously told the Commission: “With E911 service now a mandate for cellular providers, and with GPS a globally available, free locational service, the narrow market for LMS, as earlier envisioned, does not exist.”³⁶ However, Progeny has continued to actively explore related niches, some details of which the company provides for the FCC in a separate attachment under seal. Thus, this lack of equipment is due to causes beyond Progeny’s control. As the Commission noted last year in granting construction relief to 220 MHz licensees who could not obtain equipment: “We do not believe it is reasonable to fault licensees who obtained licenses and then faced an unexpected loss of equipment.”

Progeny has undertaken substantive due diligence efforts and continues to face an equipment development scenario that is beyond the firm’s control. This due diligence activity has covered two main areas: equipment availability and end users/partnerships. Concerning equipment, Progeny has conducted a comprehensive survey and periodic reviews of a wide range of vendors. This outreach and ongoing investigations have failed to produce affirmative responses or opportunities. While Progeny continues to monitor the equipment market to evaluate potential technology developments that would allow the company to commence construction of these licenses, none that can operate consistent with the current restrictions is on the horizon.

Notwithstanding the lack in equipment development, Progeny has continued to actively explore development of markets, technology and applications for its M-LMS licenses with potential end users and partners. A list of these discussions, which began in the first month after the licenses were granted, is enumerated in the confidential filing of Attachment B. This exploration has included discussions with the Department of Homeland Security, businesses with location monitoring requirements, equipment makers and critical infrastructure entities.

The FCC acknowledged the combined effect of this sharing scenario in granting a construction deadline extension to Havens in December 2004: “We believe that this

situation has contributed to the difficulty of M-LMS licensees in obtaining equipment, and are persuaded that the unavailability of M-LMS equipment is due to causes beyond Havens' control.”³⁷

Furthermore, equipment-makers have little incentive to develop gear for spectrum whose market niche, as originally envisioned by the FCC, has been filled by competitive offerings. The FCC Wireless Telecommunications Bureau's *Staff Report on the 2004 Biennial Regulatory Review* acknowledged this dynamic: “The services originally envisioned for LMS, such as vehicular tracking, tend to be niche services, and competition within LMS is more limited than in other types of wireless services.”³⁸ The report indicated that “LMS-type service providers” in other bands has been on the rise since 1995, when fewer providers of location service existed.³⁹

D. Progeny Faces Unique and Unusual Circumstances Contributing to the Lack of Equipment

The unique rules governing M-LMS require specialized equipment, which has led to the current impasse, in which no equipment is available. Havens had argued, for example, in his July 14, 2004, request for an extension of time to construct his licenses, that licensed LMS service must coexist with Part 15 devices, which may operate at substantial power levels.⁴⁰ “Unlike a licensed operation [this] involves levels and patterns of RF that cannot be determined or controlled, and operators that cannot reasonably be ascertained.”

As Progeny has previously told the Commission, one of the unwieldy provisions of the FCC's current rules — which have a “chilling effect” on investments in equipment development — is Section 90.353(d). This provision requires Progeny to demonstrate in field tests that its equipment does not interfere with any unlicensed service in the band. This essentially requires Progeny to prove a negative, particularly when unlicensed users in the band do not have to reveal their presence.⁴¹

Other aspects of the FCC's LMS rules create “unique and unusual” circumstances that support a limited request for relief. The unusual operating scenario for licensees, which is unique to this band, contributes to difficulties in obtaining equipment. For example, an LMS licensee can only provide a limited array of telematics functions,

specifically location services and certain communications services limited to “status” and instructional messages related to location or monitoring functions of the system.⁴²

Additionally, a licensee can only use store-and-forward technology for interconnection with the PSTN, with the exception of emergency communications and those that only can be sent to or received from a system dispatch point or entities eligible in the public safety or special emergency radio services.⁴³

E.

Petitioner Has “No Reasonable Alternative” For Meeting Construction Requirements

Under the Commission’s rules, one of the factors for FCC consideration in granting a waiver is whether the petitioner had any reasonable alternative for meeting these requirements.⁴⁴ As Progeny has stated elsewhere in the instant request, no such reasonable alternatives exist for building out these M-LMS licenses with suitable equipment, despite years of active due diligence. In the *Havens Order*, the Commission explicitly rejected arguments that Havens should have anticipated having to design and build his own equipment.

F. Uncertainty Over Future Rules Adds to “Chilled” Equipment Market

Progeny’s pending request for a re-examination of the LMS rules remains separate from its efforts to contend with the existing build-out deadlines. Nonetheless, regulatory uncertainty remains a significant hurdle encountered by Progeny when soliciting interest from potential equipment vendors and customers of M-LMS services. Throughout years of outreach to technology developers and potential service provider partners about viable location and security services in this band, one question frequently raised is whether the Commission will grant regulatory relief for M-LMS spectrum. This speculation is heightened by the extent to which the FCC already has granted increased spectrum flexibility to other licensees at 900 MHz (e.g., Part 15 operations) and spectrum-holders in other bands, such as 220 MHz licensees. Many other licensees in this band and others have enjoyed the benefit of the Commission’s reconsideration of regulatory restrictions to accommodate changes in technology development and service requirements. The extent to which these flexibility measures have not accrued to

M-LMS licensees are perplexing for potential suppliers and service providers. Progeny continues to believe that it is entitled to the same consideration by the FCC of regulatory relief.

Progeny filed its Petition for Rulemaking on March 2, 2002, demonstrating at that time that the regulatory restrictions in the band have prevented licensees and manufacturers from developing viable services and equipment that would provide substantial public benefits. Three years later, the lack of any available equipment for the band has supported this assessment. A key factor to bridging this impasse remains a clear signal from the Commission about how a need to infuse the band with regulatory flexibility will be accomplished. The Commission has taken steps to provide such certainty to users elsewhere at 900 MHz, proposing, for example, to “eliminate unnecessary regulatory restrictions” for certain Business and Industrial Land Transportation users.⁴⁵

Despite the uncertainty that exists, the underlying public interest benefits of M-LMS spectrum to meet important, innovative public safety and security services remains unchanged. For public safety agencies, for example, such services must incorporate the level of high-reliability that is made possible by licensed spectrum.

V. Granting a Limited Waiver to Progeny Would Be Consistent with FCC Precedent in Similar Wireless Proceedings

The FCC has previously recognized that rigid enforcement of construction deadlines when equipment is not available for similarly situated licensees would not be in the public interest. The Commission relied on these findings when granting relief to Havens for his M-LMS construction requirements. A similar finding for Progeny would be in the public interest and consistent with FCC precedent, particularly regarding equitable treatment for licenses identically affected by a lack of equipment in the same band.

A. 220 MHz Order Provides Basis for Relief

On July 13, 2004, the Bureau released an order that extended the five-year

construction requirement until Nov. 5, 2007, for all 220 MHz Phase II EA, regional and nationwide licenses.⁴⁶ Licensees contended that no equipment is available that is “economically feasible or being technically supported.” The *220 MHz Order* noted that many licensees plan to provide commercial services using 5 kHz voice equipment and that the additional time will allow this equipment to be developed. (The two firms that originally made this voice equipment no longer do). In granting a three-year extension, the order cited a “unique situation where there are widespread equipment availability difficulties facing licensees and confining technical characteristics.”⁴⁷ Importantly, the FCC indicated in that order, which granted relief to all licensees in this spectrum that timely requested a waiver, that “the fact that twenty-three licensees have sought relief leads us to believe that the technical and equipment challenges in this band are widespread.”⁴⁸

A similar dynamic faces the FCC concerning relief sought by M-LMS licensees. Of the four bidders who won 289 licenses in the FCC’s 1999 auction of LMS spectrum, three – Warren C. Havens, Progeny and FCR – have sought a three-year extension of the build-out requirements for the licenses. FCR, another M-LMS license-holder, has demonstrated to the FCC in its pending request for a three-year extension that it faces an identical dearth of equipment, after diligent efforts to construct networks in its licensed areas.⁴⁹ This licensee argued: “To the best of FCR’s knowledge, no equipment is available to LMS authorization holders. Absent equipment availability, FCR Inc. cannot construct an LMS system.” FCR’s first build-out deadline was July 14, 2004. The fourth, Metro-Trak, LLC, had its licenses dismissed by the FCC and they are no longer active. The FCC determined in 2000 that Metro-Trak was in default on its full payment obligations.⁵⁰

In addition, in the *220 MHz Order* the Commission granted relief to these licensees after reviewing the service rules for this band in 1997 and developing a more flexible regulatory framework, which was designed in part to enhance the competitive offerings of 220 MHz services in the marketplace.⁵¹ A similar review has not taken place of M-LMS service rules, despite the dramatic changes in the past ten years of competitive location-based offerings ranging from GPS to privately offered wireless fleet management services such as Qualcomm’s OmniTRAC. This lack of updated regulatory

24

restrictions creates an even more pressing need for Progeny's waiver request to be granted.

B. Nextel/Neoworld Public Interest Factors Hold

The FCC also has granted broader relief to similarly situated licensees in other bands where equipment availability has been a problem. In May 2001, the Wireless Bureau granted additional construction time for all 900 MHz SMR licenses, noting that the record showed that a number of licensees intend to roll out digital 900 MHz equipment to deploy advanced services.⁵² The *Nextel/Neoworld Order* concluded that by providing additional time, the public interest would be served by enhancing competition among and between 900 MHz licensees and other CMRS providers. The FCC found that Nextel and Neoworld are committed to rapidly deploying 900 MHz digital equipment and that the construction deadline should be extended because of the near-term lack of digital voice equipment for this band. As is the case in the M-LMS band, numerous licensees planned to deploy equipment to provide services in this spectrum. The order found that providing all 900 MHz licensees additional time to deploy digital equipment “will serve the public interest by enhancing competition among 900 MHz licensees and between 900 MHz licensees and other digital CMRS providers.”⁵³

The need to preserve competition in the M-LMS band provides additional good cause for granting Progeny the instant relief request, particularly because this spectrum has been underutilized without available equipment. Moreover, in the case of the 900 MHz licensees, these SMR operators were faced with a dilemma of either deploying analog systems merely to satisfy the five-year construction deadline, or seeking an extension to roll out digital equipment for advanced services. For Progeny and other M-LMS licensees, no such alternatives exist. In addition, the *Havens Order* stipulated that while the *Nextel/Neoworld Order* stressed the importance of providing a timeline in such waiver requests for when equipment would be available, such a “date certain” for commencing service did not apply to Havens. “In Nextel/Neoworld, legacy equipment was available and new equipment would be available by a date certain,” the *Havens Order* said. “In this case, no equipment is available and Havens has provided the only

evidence of possible equipment development.” Similarly for Progeny, there is no equipment presently available to build out this spectrum under the FCC’s rules, making the need to extend the construction deadline even more compelling than it has been in cases in which licensees face build-out options between analog and digital equipment.

C. Relief Has Been Granted in Cases in Which Inferior Equipment Exists; Progeny Faces Complete Absence of Equipment

Moreover, in numerous previous proceedings regarding other wireless services, the FCC has granted relief not only when no equipment has been available, as is the case with Progeny, but when no technologically advanced equipment was available.

In the case of Global Cellular Communications, Inc., for example, the FCC granted a three-month extension of its four-year construction deadline for 220 MHz Phase 1 licenses.⁵⁴ The order concluded that Global met the criteria for the extension because unique circumstances were involved and “there is no reasonable alternative solution within existing rules.” Global argued that it wanted to avoid constructing an inferior network just to meet the construction deadline but sought an additional three months to build a system optimal for advanced text messaging. The Commission also extended a four-year construction benchmark for 220 MHz licensee ComTech, which argued that an earlier, restrictive spectrum efficiency standard in the *220 MHz Third Report and Order* barred commercial deployment of one-year paging systems in this band. The FCC subsequently removed this spectrum efficiency standard, allowing ComTech to proceed with plans to provide one-way paging.⁵⁵ In both instances, the Commission granted additional construction time, even though equipment – albeit inferior and not matching the company’s business plans – existed to meet the construction requirements. In the case of Progeny, no compliant equipment exists – not even inferior equipment to serve as a “placeholder” to meet build-out requirements in the short-term.

The unique circumstances and public interest benefits inherent in Progeny’s waiver request are similar to the considerations put forth by other licensees for whom the Commission has granted construction extensions based on equipment availability. For example, in 2002 the Commission granted an extension of time to Monet Mobile

Networks to meet the construction requirements for 11 Personal Communications Services licenses.⁵⁶ Monet told the Commission that equipment for building an advanced, high-speed broadband wireless data service would not be available in time to meet the five-year construction requirement for the licenses. The Commission granted an additional eight months to meet the buildout deadlines. Progeny's waiver request should receive similar favorable treatment, given the commitment the company has demonstrated to bring services on M-LMS spectrum as soon as possible.

Progeny's equipment availability circumstances are also similar to those faced by Leap Wireless International Inc., which successfully sought an extension of time to comply with the five-year construction requirements for broadband PCS licenses.⁵⁷ Leap had requested additional time to obtain equipment to deploy high-data-rate wireless technology that was not available in time to meet the build-out deadline. One factor cited by the order in support of the request was the demonstrated intention and diligence that Leap had shown toward building out the licenses. "We find no evidence that Leap purchased the licenses with the intent of obtaining an extension, but rather all indications are that Leap intended to construct these markets within the established deadlines," the order said. This statement is equally valid to Progeny's due diligence efforts. From the first months that Progeny acquired the licenses, through to the present, the company has attempted to deploy viable services on this spectrum, but has remained stymied by a lack of suitable equipment.⁵⁸

VI. Grant of the Waiver Request Would be Consistent With FCC Precedent Regarding a Similarly Situated M-LMS Licensee

In granting limited construction milestone relief to Havens, the FCC cited three main factors as to why the extension of the five-year coverage requirements was warranted: (1) The situation of Havens is unique in that no equipment is available, making construction an impossibility at this time. (2) The requirement at issue is a five-year construction requirement, well ahead of the first renewal deadline of the licenses. (3) The 902-928 MHz band represents a unique sharing situation that involves a cross-section of licensed and unlicensed entities in this band. As does Havens, Progeny faces an identical absence of equipment. As is the case for all M-LMS licensees, the

five-year construction milestone is well in advance of the first renewal deadline of the licenses at ten years. The challenges represented by the unique sharing requirements of the band have been raised repeatedly to the Commission by Progeny, and in fact are referenced in the *Havens Order* as an example of arguments made concerning the constraints of the rules and their negative impact on equipment development.⁵⁹

Although both Havens and Progeny have pursued different development paths for the licenses, for the reasons herein, the relief requested is identical and limited. This outcome is warranted by the public interest benefits to be obtained by granting sufficient time for the M-LMS equipment to be developed. Good cause is also shown by the public interest benefits of having more than one viable LMS competitor at 900 MHz to provide location and related services. There is an additional public interest benefit in providing time for location services to develop at 902-928 MHz to provide greater consumer choice beyond telematics and related offerings in other bands.

In the *Havens Order*, the Commission concluded that a three-year extension of the construction deadline would allow Havens to “actively pursue equipment development in the near term.”⁶⁰ Similarly, an identical grant of relief to Progeny will enable the company to continue its active pursuit of developing services, technology and applications for deployment in the band.

VII. Conclusion

For the reasons herein, Progeny asks that the FCC grant a limited waiver of Section 90.155 (d) for additional time to meet the build-out requirements for its Multilateration LMS (M-LMS) Economic Area (EA) licenses. Progeny shares the Commission’s optimism that while location monitoring services such as telematics have grown considerably, there remains a public interest benefit in ensuring the utilization of M-LMS spectrum and promoting a range of services to the public.⁶¹ The FCC’s original intent – that licensed and unlicensed users could productively co-exist in the same band – remains viable.⁶² In the *LMS Report and Order*:

“The Commission recognized the important contribution to the public provided by Part 15 technologies and amateur radio operators and sought to develop a band plan that would maximize the ability of these services to

co-exist with LMS systems.”⁶³

In the *Havens Order*, the Commission reiterated its commitment to the public interest objectives for this band. Over time, this original vision for co-existence of multiple users offering innovative services has only grown in relevance and importance. For example, current homeland security and commercial spectrum requirements often require a secure licensed wireless link to be operated in conjunction with flexible unlicensed wireless applications. On the commercial side, WiMax standards are being developed with an eye toward applications that will operate in unlicensed bands, as well as “business class” services that will use licensed spectrum for higher reliability rates.⁶⁴

This evolving class of services that rely on a combination of licensed and unlicensed spectrum options lends more relevance to the FCC’s intention that a mix of diverse services should be able to co-exist at 902-928 MHz. The band plan outlined in the 1996 *LMS Report and Order* stated that the rules would “allow efficient and competitive use of the spectrum.”⁶⁵ The Commission characterized the decisions contained in the order as providing “certainty for all users of the band so they can invest in the equipment and facilities necessary to bring quality, low cost services to consumers.” Pending a grant of the instant request, Progeny is committed to making the *LMS Report and Order*’s promises of “competitive use” an operational reality within the additional construction time sought.

Appendix A
List of Progeny LMS, LLC Licenses

1) Market Designator	2) Market Name	3) Channel Block
BEA001	Bangor, ME	B
BEA001	Bangor, ME	C
BEA002	Portland, ME	B
BEA002	Portland, ME	C
BEA003	Boston-Worcester-Lawrence-Lowell-Brcktn, MA-NH	B
BEA003	Boston-Worcester-Lawrence-Lowell-Brcktn, MA-NH	C
BEA004	Burlington, VT-NY	B
BEA004	Burlington, VT-NY	C
BEA005	Albany-Schenectady-Troy, NY	B
BEA005	Albany-Schenectady-Troy, NY	C
BEA006	Syracuse, NY-PA	B
BEA006	Syracuse, NY-PA	C
BEA007	Rochester, NY-PA	B
BEA007	Rochester, NY-PA	C
BEA008	Buffalo-Niagara Falls, NY-PA	B
BEA008	Buffalo-Niagara Falls, NY-PA	C
BEA009	State College, PA	B
BEA009	State College, PA	C
BEA010	New York-No. New Jersey-Long Island, NY-NJ-CT-PA	B
BEA010	New York-No. New Jersey-Long Island, NY-NJ-CT-PA	C
BEA011	Harrisburg-Lebanon-Carlisle, PA	B
BEA011	Harrisburg-Lebanon-Carlisle, PA	C
BEA012	Philadelphia-Wilmington-Atl. City, PA-NJ-DE-MD	B
BEA012	Philadelphia-Wilmington-Atl. C City, PA-NJ-DE-MD	C
BEA013	Washington-Baltimore, DC-MD-VA-WV-PA	B
BEA013	Washington-Baltimore, DC-MD-VA-WV-PA	C
BEA015	Richmond-Petersburg, VA	B

BEA015	Richmond-Petersburg, VA	C
BEA017	Roanoke, VA-NC-WV	B
BEA017	Roanoke, VA-NC-WV	C
BEA018 <i>Appendix A</i>	Greensboro-Winston-Salem-High Point, NC-VA	B
BEA018	Greensboro-Winston-Salem-High Point, NC-VA	C
BEA019	Raleigh-Durham-Chapel Hill, NC	B
BEA019	Raleigh-Durham-Chapel Hill, NC	C
BEA020	Norfolk-Virginia Beach-Newport News, VA-NC	B
BEA020	Norfolk-Virginia Beach-Newport News, VA-NC	C
BEA021	Greenville, NC	B
BEA021	Greenville, NC	C
BEA023	Charlotte-Gastonia-Rock Hill, NC-SC	B
BEA023	Charlotte-Gastonia-Rock Hill, NC-SC	C
BEA024	Columbia, SC	B
BEA024	Columbia, SC	C
BEA025	Wilmington, NC-SC	B
BEA025	Wilmington, NC-SC	C
BEA026	Charleston-North Charleston, SC	B
BEA026	Charleston-North Charleston, SC	C
BEA027	Augusta-Aiken, GA-SC	B
BEA027	Augusta-Aiken, GA-SC	C
BEA028	Savannah, GA-SC	B
BEA028	Savannah, GA-SC	C
BEA029	Jacksonville, FL-GA	B
BEA029	Jacksonville, FL-GA	C
BEA030	Orlando, FL	B
BEA030	Orlando, FL	C
BEA031	Miami-Fort Lauderdale, FL	B
BEA031	Miami-Fort Lauderdale, FL	C
BEA032	Fort Myers-Cape Coral, FL	B
BEA032	Fort Myers-Cape Coral, FL	C
BEA033	Sarasota-Bradenton, FL	B

BEA033	Sarasota-Bradenton, FL	C
BEA034	Tampa-St. Petersburg-Clearwater, FL	B
BEA034	Tampa-St. Petersburg-Clearwater, FL	C
BEA035	Tallahassee, FL-GA	B
BEA035	Tallahassee, FL-GA	C
BEA038	Macon, GA	B
<i>Appendix A</i>		
BEA038	Macon, GA	C
BEA040	Atlanta, GA-AL-NC	B
BEA040	Atlanta, GA-AL-NC	C
BEA041	Greenville-Spartanburg-Anderson, SC-NC	B
BEA041	Greenville-Spartanburg-Anderson, SC-NC	C
BEA043	Chattanooga, TN-GA	B
BEA043	Chattanooga, TN-GA	C
BEA044	Knoxville, TN	B
BEA044	Knoxville, TN	C
BEA045	Johnson City-Kingsport-Bristol, TN-VA	B
BEA045	Johnson City-Kingsport-Bristol, TN-VA	C
BEA047	Lexington, KY-TN-VA-WV	B
BEA047	Lexington, KY-TN-VA-WV	C
BEA048	Charleston, WV-KY-OH	B
BEA048	Charleston, WV-KY-OH	C
BEA049	Cincinnati-Hamilton, OH-KY-IN	B
BEA049	Cincinnati-Hamilton, OH-KY-IN	C
BEA050	Dayton-Springfield, OH	B
BEA050	Dayton-Springfield, OH	C
BEA051	Columbus, OH	B
BEA051	Columbus, OH	C
BEA053	Pittsburgh, PA-WV	B
BEA053	Pittsburgh, PA-WV	C
BEA054	Erie, PA	B
BEA054	Erie, PA	C
BEA055	Cleveland-Akron, OH-PA	B
BEA055	Cleveland-Akron, OH-PA	C
BEA056	Toledo, OH	B

BEA056	Toledo, OH	C
BEA057	Detroit-Ann Arbor-Flint, MI	B
BEA057	Detroit-Ann Arbor-Flint, MI	C
BEA059	Green Bay, WI-MI	B
BEA059	Green Bay, WI-MI	C
BEA062	Grand Rapids-Muskegon-Holland, MI	B
BEA062	Grand Rapids-Muskegon-Holland, MI	C
BEA063	Milwaukee-Racine, WI	B
BEA063	Milwaukee-Racine, WI	C
<i>Appendix A</i>		
BEA064	Chicago-Gary-Kenosha, IL-IN-WI	B
BEA064	Chicago-Gary-Kenosha, IL-IN-WI	C
BEA065	Elkhart-Goshen, IN-MI	B
BEA065	Elkhart-Goshen, IN-MI	C
BEA066	Fort Wayne, IN	B
BEA066	Fort Wayne, IN	C
BEA067	Indianapolis, IN-IL	B
BEA067	Indianapolis, IN-IL	C
BEA068	Champaign-Urbana, IL	B
BEA068	Champaign-Urbana, IL	C
BEA069	Evansville-Henderson, IN-KY-IL	B
BEA069	Evansville-Henderson, IN-KY-IL	C
BEA070	Louisville, KY-IN	B
BEA070	Louisville, KY-IN	C
BEA071	Nashville, TN-KY	B
BEA071	Nashville, TN-KY	C
BEA073	Memphis, TN-AR-MS-KY	B
BEA073	Memphis, TN-AR-MS-KY	C
BEA074	Huntsville, AL-TN	B
BEA074	Huntsville, AL-TN	C
BEA075	Tupelo, MS-AL-TN	B
BEA075	Tupelo, MS-AL-TN	C
BEA077	Jackson, MS-AL-LA	B
BEA077	Jackson, MS-AL-LA	C
BEA078	Birmingham, AL	B

BEA078	Birmingham, AL	C
BEA080	Mobile, AL	B
BEA080	Mobile, AL	C
BEA081	Pensacola, FL	B
BEA081	Pensacola, FL	C
BEA083	New Orleans, LA-MS	B
BEA083	New Orleans, LA-MS	C
BEA084	Baton Rouge, LA-MS	B
BEA084	Baton Rouge, LA-MS	C
BEA085	Lafayette, LA	B
BEA085	Lafayette, LA	C
BEA086	Lake Charles, LA	B
<i>Appendix A</i>		
BEA086	Lake Charles, LA	C
BEA088	Shreveport-Bossier City, LA-AR	B
BEA088	Shreveport-Bossier City, LA-AR	C
BEA090	Little Rock-North Little Rock, AR	B
BEA090	Little Rock-North Little Rock, AR	C
BEA094	Springfield, MO	B
BEA094	Springfield, MO	C
BEA096	St. Louis, MO-IL	B
BEA096	St. Louis, MO-IL	C
BEA099	Kansas City, MO-KS	B
BEA099	Kansas City, MO-KS	C
BEA100	Des Moines, IA-IL-MO	B
BEA100	Des Moines, IA-IL-MO	C
BEA101	Peoria-Pekin, IL	B
BEA101	Peoria-Pekin, IL	C
BEA102	Davenport-Moline-Rock Island, IA-IL	B
BEA102	Davenport-Moline-Rock Island, IA-IL	C
BEA104	Madison, WI-IA-IL	B
BEA104	Madison, WI-IA-IL	C
BEA107	Minneapolis-St. Paul, MN-WI-IA	A
BEA107	Minneapolis-St. Paul, MN-WI-IA	B
BEA116	Sioux Falls, SD-IA-MN-NE	B

BEA116	Sioux Falls, SD-IA-MN-NE	C
BEA118	Omaha, NE-IA-MO	B
BEA118	Omaha, NE-IA-MO	C
BEA122	Wichita, KS-OK	B
BEA122	Wichita, KS-OK	C
BEA124	Tulsa, OK-KS	B
BEA124	Tulsa, OK-KS	C
BEA125	Oklahoma City, OK	B
BEA125	Oklahoma City, OK	C
BEA127	Dallas-Fort Worth, TX-AR-OK	B
BEA127	Dallas-Fort Worth, TX-AR-OK	C
BEA130	Austin-San Marcos, TX	B
BEA130	Austin-San Marcos, TX	C
BEA131	Houston-Galveston-Brazoria, TX	B
BEA131	Houston-Galveston-Brazoria, TX	C
<i>Appendix A</i>		
BEA132	Corpus Christi, TX	B
BEA132	Corpus Christi, TX	C
BEA133	McAllen-Edinburg-Mission, TX	B
BEA133	McAllen-Edinburg-Mission, TX	C
BEA134	San Antonio, TX	B
BEA134	San Antonio, TX	C
BEA141	Denver-Boulder-Greeley, CO-KS-NE	B
BEA141	Denver-Boulder-Greeley, CO-KS-NE	C
BEA147	Spokane, WA-ID	B
BEA147	Spokane, WA-ID	C
BEA150	Boise City, ID-OR	B
BEA150	Boise City, ID-OR	C
BEA151	Reno, NV-CA	B
BEA151	Reno, NV-CA	C
BEA152	Salt Lake City-Ogden, UT-ID	B
BEA152	Salt Lake City-Ogden, UT-ID	C
BEA153	Las Vegas, NV-AZ-UT	B
BEA153	Las Vegas, NV-AZ-UT	C
BEA156	Albuquerque, NM-AZ	B

BEA156	Albuquerque, NM-AZ	C
BEA157	El Paso, TX-NM	B
BEA157	El Paso, TX-NM	C
BEA158	Phoenix-Mesa, AZ-NM	B
BEA158	Phoenix-Mesa, AZ-NM	C
BEA159	Tucson, AZ	B
BEA159	Tucson, AZ	C
BEA160	Los Angeles-Riverside-Orange County, CA-AZ	B
BEA160	Los Angeles-Riverside-Orange County, CA-AZ	C
BEA161	San Diego, CA	B
BEA161	San Diego, CA	C
BEA162	Fresno, CA	B
BEA162	Fresno, CA	C
BEA163	San Francisco-Oakland-San Jose, CA	B
BEA163	San Francisco-Oakland-San Jose, CA	C
BEA164	Sacramento-Yolo, CA	A
<i>Appendix</i>		
BEA164	Sacramento-Yolo, CA	B
BEA166	Eugene-Springfield, OR-CA	B
BEA166	Eugene-Springfield, OR-CA	C
BEA167	Portland-Salem, OR-WA	B
BEA167	Portland-Salem, OR-WA	C
BEA169	Richland-Kennewick-Pasco, WA	B
BEA169	Richland-Kennewick-Pasco, WA	C
BEA170	Seattle-Tacoma-Bremerton, WA	B
BEA170	Seattle-Tacoma-Bremerton, WA	C
BEA171	Anchorage, AK	B
BEA171	Anchorage, AK	C
BEA172	Honolulu, HI	B
BEA172	Honolulu, HI	C
BEA173	Guam & Northern Mariana Islands	B
BEA173	Guam & Northern Mariana Islands	C
BEA174	Puerto Rico & U.S. Virgin Islands	B
BEA174	Puerto Rico & U.S. Virgin Islands	C
BEA176	Gulf of Mexico	B

BEA176	Gulf of Mexico	C
--------	----------------	---

¹ See *Petition for Rulemaking in the Matter of Progeny LMS, LLC, Amendment of Part 90 of the Commission's Rules Governing the Location and Monitoring Service to Provide Greater Flexibility*, RM-10403 (filed March 5, 2002) at page 2 (*Progeny Petition*).

²See *Memorandum Opinion and Order in the Matter of Request of Warren C. Havens for Waiver of the Five-Year Construction Requirement for His Multilateration Location and Monitoring Service Economic Area Licenses*, released December 9, 2004 (*Havens Order*), at page 3.

³See *In the Matter of Request of Warren C. Havens for Waiver or Extension of the Five-Year Construction Requirement for 220 MHz Service Phase II Economic Area and Regional Licensees and Request of BizCom USA for Waiver and Extension of the Construction Requirements for 220 MHz Service Phase II Regional and Nationwide Licensees and Request of Cornerstone SMR, Inc. for Waiver of Section 90.157 of the Commission's Rules*, *Memorandum Opinion and Order*, released July 13, 2004 (*220 MHz Order*).

⁴See *In the Matter of FCI 900, Inc. Expedited Request for Three-Year Extension of the 900 MHz Construction Requirements and Neoworld License Holdings, Inc. Request for Waiver of the 900 MHz Band Construction Requirements and Petition for Declaratory Ruling*, *Memorandum Opinion and Order*, 16 FCC Rcd 11072 (2001) (*Nextel/Neoworld Order*).

⁵47 C.F.R. §§ 1.925, 1.946(e).

⁶ All of Progeny's EA-based M-LMS licenses are covered in this request. They are listed in Appendix A, along with a list of markets and channel blocks.

⁷ 47 C.F.R. § 90.155(d).

⁸ The first renewal deadline for M-LMS licenses is 10 years after the original FCC grant of the license. The first renewal date for Progeny's licenses in this band is July 19, 2010.

⁹ See *Havens Order* at page 3.

¹⁰ Despite a record of due diligence, Havens was not able to meet the first construction milestone for these licenses. Similarly, Progeny has approached numerous manufacturers and service providers about developing LMS-compatible equipment. The FCC's rules do not require licensees to undertake direct technology development efforts. Among other efforts, Progeny has attempted to address this equipment supply problem by working to advance the deployment of applications in this band that would justify the investment risk of telecommunications suppliers.

¹¹ See *Havens Order* at page 4.

¹² 47 C.F.R. § 1.925.

¹³ See *Havens Order* at page 3, citing Amendment of the Commission's Rules to Establish New Personal Communications Services, *Memorandum Opinion and Order*, 9 FCC Rcd 4957, 5019 (1994) (PCS MO&O), citing *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969).

¹⁴See *Progeny Petition* at page 2.

¹⁵*Report and Order*, Docket No. 18302, 30 RR 2d 1665 (1974).

¹⁶ See *Location and Monitoring Service Auction Closes, Winning Bidders in the Auction of 528 Multilateration Licenses in the Location and Monitoring Service*, Public Notice, DA 99-05, rel. March 8, 1999.

¹⁷ The Progeny M-LMS licenses covered in this request are listed in full in Appendix A.

¹⁸ Under §§ 1.946(c) and 1.955(a)(2) of the FCC's rules, an M-LMS license automatically terminates as of the construction deadline if the licensee does not meet the build-out requirements, barring a Commission

grant of an extension request or waiver of the LMS construction requirements.

¹⁹ Details of these activities are submitted under a separate confidentiality request as Attachment B.

²⁰See *Progeny Petition* at page 15.

²¹ See In the Matter of Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, *Second Report and Order*, 13 FCC Rcd 15182 (1998) (*Second LMS Order*).

²² Id. at page 17.

²³ See *FCC Biennial Regulatory Review 2004, Wireless Telecommunications Bureau Staff Report*, Docket No. 04-180, adopted January 5, 2005.

²⁴ 47 C.F.R. § 1.925.

²⁵ See *Havens Order* at page 4.

²⁶See In the Matter of Licenses of Warren C. Havens in the Location and Monitoring Service, Request for Partial Waiver, filed December 3, 2003, at page 3.

²⁷See FCC Wireless Telecommunications Bureau's Summary of "Construction/Coverage Requirements, By Service," at <http://wireless.fcc.gov/licensing/const-req/summary.html>.

²⁸See *Progeny Petition for Rulemaking* at page 15. The company informed the FCC that it had conducted discussions with a virtual "Who's Who" of U.S. telecommunications equipment manufacturers, all of which indicated an unwillingness to dedicate time and expenses to develop equipment for M-LMS services given the current regulatory restrictions.

²⁹ See *Auction of Licenses for Multi-Radio Service Spectrum, Status of FCC Form 172 Applications to Participate in the Auction*, Public Notice, DA 01-2762, rel. November 30, 2001.

³⁰See *Progeny Petition for Rulemaking* at page 6.

³¹See C.F.R. 47 § 90.353(b). Under this provision of Commission rules, LMS systems in the 902-928 MHz band are authorized to transmit status and instructional messages, either voice or non-voice, as long as they are related to the location and monitoring functions of the system.

³²See In the Matter of Licenses of Warren C. Havens in the Location and Monitoring Service, *Request for Partial Waiver*, filed December 3, 2003, at page 9.

³³See FCR Inc. Request for Extension of First LMS Buildout Date, Exhibit 1 (filed June 18, 2004) (*FCR Request*).

³⁴See *Progeny Ex Parte* Presentation, November 14, 2003, Re: Progeny LMS, LLC Petition for Rulemaking to Amend Part 90 of the Commission's Rules Governing Location and Monitoring Service to Provide Greater Flexibility, RM-10403 (*Progeny Ex Parte Comments*) at page 3.

³⁵See In the Matter of Modification of Parts 2 and 15 of the Commission's Rules for Unlicensed Devices and Equipment, Report and Order, ET Docket No. 03-201, released July 12, 2004. Warren C. Havens and Telesaurus filed a Petition for Reconsideration of the Report and Order on October 7, 2004, for which the Commission opened a comment period in January 2005. Havens argued: "When the technology of such devices changes, as it will per the Order, then this LMS requirement is also necessarily and substantially changed."

³⁶See *Progeny Ex Parte Comments* at page 3.

³⁷ Id. at page 3.

³⁸See the Commission's 2004 Biennial Regulatory Review, WT Docket No. 04-180, Wireless Telecommunications Bureau Staff Report, (rel. January 5, 2005), at page 106.

³⁹ Id. Examples of competitive location service offerings cited by the Report include Qualcomm's Omni-Tracs Service and ORBCOMM's Little LEO service.

⁴⁰See Request for Partial Waiver, Amended Request, filed by Warren C. Havens on July 14, 2004.

⁴¹See Progeny *Ex Parte* Comments filed November 14, 2003, at page 3.

⁴²See 47 C.F.R. § 90.353(b).

⁴³See 47 C.F.R. § 90.435(c).

⁴⁴ 47 C.F.R. § 1.925.

⁴⁵See "FCC Proposes Additional Flexibility in the 900 MHz Spectrum Band," FCC Press Release, February 10, 2005, concerning a *Notice of Proposed Rulemaking* adopted by the Commission that would give new license-holders at 900 MHz the flexibility to provide any fixed or mobile service pursuant to the allocation for this spectrum. The proposal would allow more flexible use of "white space" spectrum in this band to allow users to "respond to evolving market demands."

⁴⁶ See *220 MHz Order*.

⁴⁷ Id. at page 8.

⁴⁸ Id. at page 9.

⁴⁹See *FCR Request* at page 4.

⁵⁰See *In the Matter of Metro-Trak LLC for Multilateration Location and Monitoring Service Auction Order* released August 3, 2000.

⁵¹ See *220 MHz Order* at page 2.

⁵² See *Nextel/Neoworld Order*.

⁵³ Id. at page 8.

⁵⁴ See *Order in the Matter of Global Cellular Communications Inc., Request for Extension of Time to Construct a 220-222 MHz Commercial Nationwide Land Mobile Radio System*, rel. August 27, 1998, DA 98-1717.

⁵⁵ See *Order in the Matter of ComTech Communications Inc., Request for Extension of Time to Construct a 220-222 MHz Commercial Nationwide Land Mobile Radio System*, rel. August 27, 1998, DA 98-1716.

⁵⁶ See *Order in the Matter of Monet Mobile Networks Inc., Request for Waiver and Extension of the Broadband PCS Construction Requirements*, 17 FCC Rcd 6452 (*Monet Mobile Order*).

⁵⁷ See *Memorandum Opinion and Order, Leap Wireless International, Inc., Request for Waiver and Extension of Broadband PCS Construction Requirements*, 16 FCC Rcd 19573.

⁵⁸ The FCC concluded in the *Havens Order* that his request for a construction deadline extension was dissimilar to two orders in which waiver requests were denied. The *Havens Order* concluded that these previous orders did not apply because he had attempted to obtain equipment or remedy the lack thereof,

unlike the parties at issue in those orders. A similar finding is warranted for Progeny because it has undertaken substantial efforts to undertake network construction. See *Memorandum Opinion and Order in the Matter of Request for Extension of Time to Construct an Industrial/Business Radio Service Trunked Station Call Sign WPNZ964*, 18 FCC Rcd 22055 (WTB, CWD 2003) (*Hilltop Order*) and In the Matter of Request for Extension of Time to Construct a 900 MHz Specialized Mobile Radio Station and Request for Waiver of the Automatic License Cancellation of Call Sign KNNY348, Order, 19 FCC Rcd 2209 (WTB, MD 2004) (*McCart Order*).

⁵⁹ Id.

⁶⁰ See *Havens Order* at page 4.

⁶¹ Id.

⁶² Progeny's Petition for Rulemaking asks the Commission to grant additional flexibility to LMS licenses and to modify certain restrictions in Sections 90.351 to 90.365 of the Commission's Rules. However, the Petition did not dispute the underlying intent of the Rules, which were designed to facilitate the coexistence of diverse licensed and unlicensed services.

⁶³ See *Second LMS Order* at page 5.

⁶⁴ See "WiMax Starts to Settle on Frequencies," IDG News Service, June 18, 2004, http://64.233.161.104/search?q=cache:K_9n5vIeIUJ:www.techworld.com/mobility/features/index.cfm%3FFeatureID%3D661+wimax+and+licensed+and+unlicensed+spectrum&hl=en

⁶⁵ See In the Matter of Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, released February 6, 1995, at page 2.